

## § 98.264

$P_{n,i}$  = Mass of phosphate rock by origin  $i$  consumed in month  $n$  by wet-process phosphoric acid process line  $m$  (tons).

$z$  = Number of months during which the process line  $m$  operates.

$b$  = Number of different types of phosphate rock in month, by origin. If the grab sample is a composite sample of rock from more than one origin,  $b=1$ .

2000/2205 = Conversion factor to convert tons to metric tons.

(2) You must determine the total emissions from the facility using Equation Z-2 of this section:

$$CO_2 = \sum_{m=1}^p E_m \quad (\text{Eq. Z-2})$$

Where:

$CO_2$  = Annual process  $CO_2$  emissions from phosphoric acid production facility (metric tons/year).

$E_m$  = Annual process  $CO_2$  emissions from wet-process phosphoric acid process line  $m$  (metric tons/year).

$p$  = Number of wet-process phosphoric acid process lines.

(c) If GHG emissions from a wet-process phosphoric acid process line are vented through the same stack as any combustion unit or process equipment that reports  $CO_2$  emissions using a CEMS that complies with the Tier 4 Calculation Methodology in subpart C of this part (General Stationary Fuel Combustion Sources), then the calculation methodology in paragraph (b) of this section shall not be used to calculate process emissions. The owner or operator shall report under this subpart the combined stack emissions according to the Tier 4 Calculation Methodology in § 98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66468, Oct. 28, 2010]

## § 98.264 Monitoring and QA/QC requirements.

(a) You must obtain a monthly grab sample of phosphate rock directly from the rock being fed to the process line before it enters the mill using one of the following methods. You may conduct the representative bulk sampling using a method published by a consensus standards organization, or you may use industry consensus standard practice methods, including but not

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limited to the Phosphate Mining States Methods Used and Adopted by the Association of Fertilizer and Phosphate Chemists (AFPC) (P.O. Box 1645, Bartow, Florida 33831, (863) 534-9755, <http://afpc.net>,

[paul.mcafee@mosaicco.com](mailto:paul.mcafee@mosaicco.com)). If phosphate rock is obtained from more than one origin in a month, you must obtain a sample from each origin of rock or obtain a composite representative sample.

(b) You must determine the carbon dioxide or inorganic carbon content of each monthly grab sample of phosphate rock (consumed in the production of phosphoric acid). You may use a method published by a consensus standards organization, or you may use industry consensus standard practice methods, including but not limited to the Phosphate Mining States Methods Used and Adopted by AFPC (P.O. Box 1645, Bartow, Florida 33831, (863) 534-9755, <http://afpc.net>, [paul.mcafee@mosaicco.com](mailto:paul.mcafee@mosaicco.com)).

(c) You must determine the mass of phosphate rock consumed each month (by origin) in each wet-process phosphoric acid process line. You can use existing plant procedures that are used for accounting purposes (such as sales records) or you can use data from existing monitoring equipment that is used to measure total mass flow of phosphorous-bearing feed under 40 CFR part 60 or part 63.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66468, Oct. 28, 2010]

## § 98.265 Procedures for estimating missing data.

(a) For each missing value of the inorganic carbon content of phosphate rock or carbon dioxide (by origin), you must use the appropriate default factor provided in Table Z-1 this subpart. Alternatively, you must determine a substitute data value by calculating the arithmetic average of the quality-assured values of inorganic carbon contents of phosphate rock of origin  $i$  from samples immediately preceding and immediately following the missing data incident. You must document and keep records of the procedures used for all such estimates.

(a) For each missing value of the inorganic carbon content of phosphate

rock (by origin), you must use the appropriate default factor provided in Table Z-1 of this subpart. Alternatively, the you must determine substitute data value by calculating the arithmetic average of the quality-assured values of inorganic carbon contents of phosphate rock of origin *i* (see Equation Z-1 of this subpart) from samples immediately preceding and immediately following the missing data incident. If no quality-assured data on inorganic carbon contents of phosphate rock of origin *i* are available prior to the missing data incident, the substitute data value shall be the first quality-assured value for inorganic carbon contents for phosphate rock of origin *i* obtained after the missing data period.

(b) For each missing value of monthly mass consumption of phosphate rock (by origin), you must use the best available estimate based on all available process data or data used for accounting purposes.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66469, Oct. 28, 2010]

#### § 98.266 Data reporting requirements.

In addition to the information required by § 98.3(c), each annual report must contain the information specified in paragraphs (a) through (f) of this section.

(a) Annual phosphoric acid production by origin (as listed in Table Z-1 to this subpart) of the phosphate rock (tons).

(b) Annual phosphoric acid permitted production capacity (tons).

(c) Annual arithmetic average percent inorganic carbon or carbon dioxide in phosphate rock from monthly records (percent by weight, expressed as a decimal fraction).

(d) Annual phosphate rock consumption from monthly measurement records by origin, (as listed in Table Z-1 to this subpart) (tons).

(e) If you use a CEMS to measure CO<sub>2</sub> emissions, then you must report the information in paragraphs (e)(1) and (e)(2) of this section.

(1) The identification number of each wet-process phosphoric acid process line.

(2) The annual CO<sub>2</sub> emissions from each wet-process phosphoric acid proc-

ess line (metric tons) and the relevant information required under 40 CFR 98.36 (e)(2)(vi) for the Tier 4 Calculation Methodology.

(f) If you do not use a CEMS to measure emissions, then you must report the information in paragraphs (f)(1) through (9) of this section.

(1) Identification number of each wet-process phosphoric acid process line.

(2) Annual CO<sub>2</sub> emissions from each wet-process phosphoric acid process line (metric tons) as calculated by either Equation Z-1a or Equation Z-1b of this subpart.

(3) Annual phosphoric acid permitted production capacity (tons) for each wet-process phosphoric acid process line (metric tons).

(4) Method used to estimate any missing values of inorganic carbon content or carbon dioxide content of phosphate rock for each wet-process phosphoric acid process line.

(5) Monthly inorganic carbon content of phosphate rock for each wet-process phosphoric acid process line for which Equation Z-1a is used (percent by weight, expressed as a decimal fraction), or CO<sub>2</sub> (percent by weight, expressed as a decimal fraction) for which Equation Z-1b is used.

(6) Monthly mass of phosphate rock consumed by origin, (as listed in Table Z-1 of this subpart) in production for each wet-process phosphoric acid process line (tons).

(7) Number of wet-process phosphoric acid process lines.

(8) Number of times missing data procedures were used to estimate phosphate rock consumption (months) and inorganic carbon contents of the phosphate rock (months).

(9) Annual process CO<sub>2</sub> emissions from phosphoric acid production facility (metric tons).

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66469, Oct. 28, 2010]

#### § 98.267 Records that must be retained.

In addition to the records required by § 98.3(g), you must retain the records specified in paragraphs (a) through (c) of this section for each wet-process phosphoric acid production facility.